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**5-ARYLTETRAZOLE COMPOUNDS, COMPOSITIONS
THEREOF, AND USES THEREFOR**

This application is a continuation-in-part of U.S. application no. 10/197,609,
Now ALLOWED,
filed July 18, 2002, which is currently pending, the entirety of which is incorporated herein
by reference.

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GOVERNMENTAL SUPPORT

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National Institute of General Medical Sciences Grant No. 1R43GM59017-01. Accordingly,
the U.S. Government may have certain rights in the invention.

1. FIELD OF THE INVENTION

The present invention relates to 5-Aryltetrazole Compounds, compositions
15 comprising an effective amount of a 5-Aryltetrazole Compound, and methods for treating or
preventing an inflammation disease, a reperfusion disease, or hyperuricemia comprising
administering to an animal in need thereof an effective amount of a 5-Aryltetrazole
Compound.

2. BACKGROUND OF THE INVENTION

20 The level of xanthine oxidase ("XO") in an animal increases markedly
(>400-fold in bronchoalveolar fluid in pneumonitis) during inflammation, ischemia-
reperfusion injury, and atherosclerosis. Particularly, due to the spillover of tissue XO into
the circulation, plasma levels of XO may be detected in an animal experiencing adult
respiratory distress syndrome, ischemia-reperfusion injury, arthritis, sepsis, hemorrhagic
25 shock, and other inflammatory conditions. Inflammation-induced histamine release by mast
cells and basophils also enhances the activity of XO.

Superoxide radical (O_2^-) can be generated by xanthine oxidase and NADPH
oxidase from the partial reduction of molecular oxygen. Neutrophils and macrophages are
known to produce O_2^- and hydrogen peroxide (H_2O_2), which normally are involved in the
30 killing of ingested or invading microbes (T. Oda *et al.*, *Science*, 244:974-976). Under
physiologic conditions XO is ubiquitously present in the form of a xanthine dehydrogenase
(XDH). XDH is a molybdenum iron-sulfur flavin dehydrogenase that uses NAD^+ as an